

REMARKS

This Amendment pursuant to 37 C.F.R. §116 is filed in response to the final Office Action mailed on April 27, 2005. It is respectfully submitted that the amendment places the claims in condition for allowance. All objections and rejections are respectfully traversed.

Claims 1- 36 are pending in the case.

On Page 2 of the Office Action, claim 36 was rejected under 35 U.S.C. § 101 on the grounds that the claimed invention is directed to non-statutory subject matter.

The present invention as set out in claim 36 comprises in part:

Electromagnetic signals propagating on a computer network, comprising: said electromagnetic signals carrying instructions for execution on a processor for the practice of a method for allocating a spare disk to replace a failed disk in a network storage system, the method having the steps of,
maintaining a plurality of volumes in the network storage system, each volume associated with a set of disk storage units;
maintaining a plurality of spare disks in the network storage system;
choosing a best spare disk of the plurality of spare disks to replace a failed disk, the failed disk associated with any volume of the network storage system; and
replacing the failed disk with the best spare disk.

Applicant respectfully urges that the novel aspects of the invention are tangibly embodied in the electromagnetic signals propagating on the computer network. Further, Applicant respectfully urges that the embodiment of electromagnetic signals for allocating a spare disk to replace a failed disk in a network storage system fully satisfies all requirements of 35 U.S.C. § 101, and all requirements set out in the MPEP.

That is, Applicant respectfully urges that the embodiment of the instructions in electromagnetic signals meets all the requirements of 35 U.S.C. § 101, especially as clarified by MPEP 2106 IV, B, 1 (c). Further, MPEP 2106 IV, B, 1 (c) states at page 2100-14:

“However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature. See *O’Reilly* 56 U.S. at 114-19; *In re Breslow*, 616 F.2d 516, 519 – 21, 205 U.S.P.Q. 221, 225 – 26 (CCPA 1980).”

In the case *In re Breslow*, claims were permitted by the court (CCPA) to chemical species which are transient in nature, and cannot be separated out of the mixture in which they are created. The MPEP cites this patentability of transitory phenomenon in chemical reactions in support of the statement by the MPEP, “However a **signal** claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature” (Emphasis added).

The important point for patentability is the practical application of electromagnetic energy. And a practical application of electromagnetic energy is transmission of a program over a computer network where the program is for the practice of a novel method. This practical application of electromagnetic energy is patentable subject matter, as explained by MPEP 2106 IV, B, 1 (c).

A copy of the *In re Breslow* decision from 205 U.S.P.Q. 221 is attached to this amendment for the convenience of the Examiner.

Applicant respectfully urges that embedding instructions for execution in a processor in an electromagnetic signal propagating on a computer network meets the practical application requirements of 35 U.S.C. §101 and of MPEP 2106 IV, B, 1 (c) and that claim 36 therefore claims statutory subject matter. Accordingly, reconsideration of the rejection of claim 36 is respectfully requested.

Also on Page 2 of the Office Action, Claims 1-3, 5-11, 13-16, 21-24, 29-30, and 35-36 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,872,906, which issued on February 16, 1999, to Morita et al. (“Morita”).

The present invention, as set forth in independent claim 1, comprises in part:

1. A method for a file server to allocate a spare disk to replace a failed disk in a network storage system comprising the steps of:
identifying a set of spare disks, the set of spare disks attached to the network storage system;
choosing a best spare disk of the set of spare disks; and
claiming ownership of the best spare disk.

Morita discloses a method for replacing a failed disk in a storage system by a spare disk. The spare disk is identified by its “rank”, and has four classifications. The classifications are: I. each rank has a spare disk; II. a spare disk may be used in a plurality of ranks; III. the positions of the spare disks are fixed; IV. the position of the spare disk is moveable. (Morita, Col. 1, lines 56-63.) The “position” of Morita’s spare disk is identified by the port to which the disk is attached.

Applicant respectfully urges that Morita has no disclosure of Applicant’s claimed novel *identifying a set of spare disks, the set of spare disks attached to the network storage system;*

choosing a best spare disk of the set of spare disks.

As set out in Claim 1, Applicant’s spare disks are described as *the set of spare disks attached to the network storage system*, that is, Applicant’s set of spare disks are attached in the network storage system without regard to the ports, and without regard to the other identifiers used by Morita.

In his response to Applicant’s arguments, the Examiner indicates that this aspect of the invention is not stated in the claims. However, it is respectfully submitted that the absence of that subject matter itself is an indication that Applicant’s method is being performed without regard to the ports and other identifiers required by Morita.

In sharp contrast, Morita does require that the “position” of the spare disk is to be identified by the port to which the disk is attached.

Accordingly, Applicant respectfully urges that Morita is legally precluded from anticipating the presently claimed invention under 35 U.S.C. 102 because of the absence from Morita of any disclosure of Applicant's claimed novel steps of *identifying a set of spare disks, the set of spare disks attached to the network storage system; choosing a best spare disk of the set of spare disks.*

On Page 7 of the Office Action, the examiner has rejected claims 4, 12, 17-19, 25-27 and 31-33 under 35 U.S.C. §103(a) as being unpatentable over Morita.

As noted, Morita has no disclosure of Applicant's claimed novel steps of *identifying a set of spare disks, the set of spare disks attached to the network storage system; choosing a best spare disk of the set of spare disks.*

Applicant respectfully notes that the claims rejected under 35 U.S.C. §103 are dependent claims. The dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, Claims 4, 12, 17-19, 25-27, and 31-33 are believed to be in condition for allowance.

On Pages 9-10 of the Office Action, the examiner has indicated that claims 20, 28 and 34 are objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, claims 20, 28 and 34 have been rewritten, and those claims are now in condition for allowance.

All independent claims are believed to be in condition for allowance.


All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account

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Respectfully submitted,



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